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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/907,687

08/08/97

SABOURIN

M

*mk*  
AZNDR/346/US

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750 MAIN STREET  
HARTFORD CT 06103-2721

IM22/1010

EXAMINER

ALVO, M

ART UNIT

PAPER NUMBER

1731

18

DATE MAILED:

10/10/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

08/907,687

Applicant(s)

SABOURIN

Examiner

Steve Alvo

Group Art Unit

1731



☒ Responsive to communication(s) filed on Jul 27, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 2, 7, 15-27, 29, and 31-37 is/are pending in the application.

Of the above, claim(s) 15-22 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 2, 7, 23-27, 29, and 31-37 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 29, 2, 23-26, 31, 32 and 34 are rejected under 35 U.S.C. 103(a) as obvious over CEDERQUIST et al with or without PRUSAS et al or EP 0 034 560 or MINTON.

CEDERQUIST et al teaches conditioning lignocellulosic fiber material with saturated steam at a temperature of 90-100 °C and at atmospheric pressure (14.7 <sup>psi</sup> ~~atm.~~), compressing the material to remove water to a dryness of at least 50%, subsequent to the step of compressing preheating the material in an environment of saturated steam at a temperature of 130-200 °C.

The term "about" permits some tolerance, and therefore encompasses values on either side of the claimed value (number). *In re Pappas*, 214 F.2d, 176-177, 102 USPQ 298, 301 (CCPA); *In re De Vaney*, 185 F. 2d 679, 683, 88 USPQ 97, 101 (CCPA 1950); *In re Ayers*, 154 F.2d 182, 185, 69 USPQ 109, 112 (CCPA 1946). Thus the claimed "about 15 psia would include the pressure of 14.7 (atmospheric) disclosed by CEDERQUIST et al. It is noted that the instant process can operate at pressures as low as 10 psi (see specification, page 3, line 15). A temperature of 200 °C would be above the glass transition temperature. It would obvious to use a compression ratio necessary to obtain the desired moisture in the pulp. Applicant uses the same type of apparatus to compress and destructure the fibers, e.g. a screw press, used by CEDERQUIST et al. The "destructuring the fibers without significant breakage across grain boundaries" is a direct result of

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the "conditioning" of the fibers. The same "conditioning" is taught by the applied art. At best Applicant is optimizing the "conditioning" of the prior art. There is a reasonable expectation that the conditioning of the prior art would yield a feed material having the desired amount of destructuring. *In re O'Farrel*, 7 USPQ2d 1673, 1680-81. In any event, it is well settled that an artisan with ordinary skill would have found it obvious to determine workable or even optimum values for an art recognized, result effective parameter, such as the proper amount of compression, *In re Boesch*, 205 USPQ 215, 219; *In re Aller*, 105, USPQ 233, 235. If the compression ratio is not obvious over CEDERQUIST et al, then the use of a compression ratio of at least 4:1 is taught by PRUSAS et al (column 4, lines 41-43 and column 8, lines 17-23) or EP 0 034 560 or MINTON. It would have been obvious to compress the material of CEDERQUIST et al in the manner taught by PRUSAS et al or EP 0 034 560 (column 3, lines 21-23) or MINTON (column 3, lines 17-24) to prepare the fibers for refining by reducing the moisture content and/or destructuring the fibers.

Claims 7, 27, 33, 35, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over CEDERQUIST et al with or without PRUSAS et al or MINTON as applied to claim 29 above, and further in view of EP 0 034 560.

EP 0 034 560 teaches pretreating the lignocellulosic material with steam prior to compression and refining in the same manner taught by CEDERQUIST et al. CEDERQUIST et al is silent as to the time of treatment, while EP 0 034 560 teaches steam pretreatment using the same temperature 100 °C and pressure atmospheric as CEDERQUIST et al. It would have been

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obvious to use the same time for pretreatment for CEDERQUIST et al as taught by EP 0 034 560, e.g. 60 minutes (page 5, line 4) as they are performing the same steam pretreatment.

Applicant's arguments are moot due to the new art.

Applicant's amendments to the claims removed the rejections under 35 U.S.C. 112.

Applicant's amendments, drawn to : a "subsequent ... preheating step"(claim 29), a "pressure of about 15-25" (claim 31) and "saturated steam" (claim 36) and deleting "pressures of 100 psi", necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the **primary examiner** should be directed to **Steve Alvo** whose telephone number is **(703) 308-2048**. The Examiner can normally be reached on Monday - Friday from **6:00 AM - 2:30 PM (EST)**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stanley Silverman, can be reached on 703-308-3837.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Group receptionist** whose telephone number is **(703) 308-0661**.

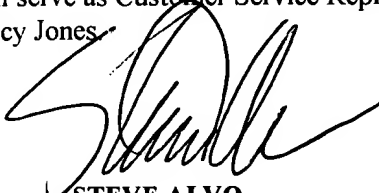
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MSA  
October 6, 2000



**STEVE ALVO**  
**PRIMARY EXAMINER**  
**ART UNIT 1731**